

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mark Solomon on 7/11/11.

The application has been amended as follows:

In lines 3-4 of claim 41 replace "in a processor, assigning one or more frequency bins to a user," with "assigning, by a processor, one or more frequency bins to a user,".

In line 3 of claim 43 replace "in a processor, determining a first direction of arrival of a signal for a first" with "determining, by a processor, a first direction of arrival of a signal for a first"

In line 3 of claim 44 replace "in a processor, partitioning available bandwidth into a plurality of frequency" with "partitioning, by a processor, available bandwidth into a plurality of frequency"

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Allowable Subject Matter

2. Claims 1-6, 29-35, 38-41, & 43-47 are allowed. The following is an Examiner's statement of reasons for allowance: Claims 1-6, 29-35, 38-41, & 43-47 are considered allowable since no prior art reference or combination of prior art references alone or in combination disclose or suggest the combination of limitations specified in the independent claims including:

"at least two receiving elements configured to receive the communication signal on a same frequency band during any period of time" in combination with other claim limitations as specified in claims 1 & 29.

"each subarray including at least two receiving elements, the receiving elements in the sub-arrays being located no farther apart than a predetermined maximum receiving element spacing to facilitate spatial filtering, wherein the sub-arrays being spaced to obtain spatial diversity" in combination with other claim limitations as specified in claim 35.

“the desired signal response pattern having an angular radius indicative of relative gain of the desired signal in a given angular direction; a base station configured to modify the desired response pattern to provide a higher relative gain of the desired signal in one or more angular directions and minimize co-channel interference in other angular directions” in combination with other claim limitations as specified in claim 38.

“spacing the one or more assigned frequency bins at one or more sufficiently different frequencies in a dominant direction of arrival of signals in each bin as a function of minimizing signal strength of active bins in the neighborhood of bins belonging to other users to reduce inter-bin interference” in combination with other claim limitations as specified in claim 41

“assigning the first remote user to a first frequency bin, and assigning the second remote user to a second frequency bin based at least in part on the first and second direction of arrival of the signals such that the directions of arrival of the signals for adjacent frequency bins differ” in combination with other claim limitations as specified in claim 43.

“assigning a user to one or more bins in each of the frequency blocks, the one or more bins belonging to the user being widely spaced bins covering a wide range of frequencies, each bin being in a neighborhood of bins belonging to the other users and placed in the neighborhood of bins such that a differences in a power of active bins in the neighborhood are minimized” in combination with other claim limitations as specified in claim 44.

Conclusion

3. Any inquiry concerning this communication or earlier communications from the examiner should be directed to ROBERT WILSON whose telephone number is (571)272-3075. The examiner can normally be reached on M-F (8:00-4:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dang Ton can be reached on 571/272-3171. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Robert W Wilson/
Primary Examiner, Art Unit 2475

RWW
7/12/11